### AUTHOR INDEX

| Alford, | C. | A | r | 444 |
|---------|----|---|---|-----|

Brown, A. D., 296

Cheever, F. S., 400 Coons, A. H., 397 Cramblett, H. G., 431

Dawes, E. A., 126 Deibel, R. H., 330 De Ley, J., 164 Dingle, J. H., 439 Doetsch, R. N., 87

Feldman, H. A., 440 Felsenfeld, O., 72

Gwaltney, J. M., Jr., 409

Haskins, F. A., 181 Hedén, C.-G., 14 Hiatt, C. W., 150 Ho, M., 367 Holland, J. J., 3

Jackson, G. G., 423 Jordan, W. S., Jr., 409

Kersters, K., 164 Kibrick, S., 452 Kunin, C. M., 382 Lemon, H. M., 490 Lerner, A. M., 391

McCalla, T. M., 181 Martin, C. M., 480 Mims, C. A., 30 Murray, R., 493

Neva, F. A., 444

Orsi, E. V., 402

Paine, T. F., Jr., 472 Poindexter, J. S., 231 Porter, J. R., 211

Ribbons, D. W., 126

Schaeffer, M., 402 Scott, T. F. McN., 458 Smith, P. F., 97

Tokumaru, T., 458

Valentine, R. C., 497

Weller, T. H., 444 Widelock, D., 402

#### SUBJECT INDEX

acetic acid bacteria, oxidation of glycols by, 164
Aerobacter aerogenes, fate of glycogen in, 126
age-specific susceptibility to viruses, 382
aliphatic glycols, bacterial oxidation of, 164
Alternaria, phytotoxin production by, 181
amino acid catabolism by group D streptococci,
330

amino acid incorporation, by normal cells, 3 amino acid incorporation, by virus-infected cells,

amino acid pools, substrate source for endogenous respiration, 126

antibiotic sensitivity of caulobacters, 231 antibiotics, influence on plant growth, 181 antiviral chemotherapy, in herpetic infection, 458 Aspergillus, phytotoxin production by, 181 Asticcacaulis, morphology of, 231

bacterial ferredoxin, isolation, 497
bacterial response to ionic environment, 296
bacteriophage, effect of pressure on, 14
bacteriophage susceptibility of vibrios, 72
bacteriophages, specificity for caulobacters, 231
biologicals for control of virus disease, 493
biotechnology, definition of, 14
blood clearance of viruses, 30
Bordetella pertussis, removal of labile toxins from,
14

capillary endothelium, localization of viruses in, 30 carcinogens, interactions with viruses, 480 Caulobacter groups, classification of, 231 cell envelopes, structure of, 97 cerebrospinal fluid, role in virus disease, 72 chemical composition of Mycoplasma cells, 97 chemical composition of Mycoplasma envelopes, 97 cholera, El Tor vibrios in, 72 chromatography, in virus isolation, 391 clostridia, ferredoxin from, 497

Clostridium pasteurianum, electron carrier from, 497 coenzyme nature of ferredoxin, 497 common cold, specific immunity to, 423

common cold virus, rhinovirus as, 409 contagium vivum, doctrine of, 87 Coxsackie virus, age-specific susceptibility to, 382 Crawford, John (1746-1813), 87

deoxyribonucleic acid, effect of pressure on, 14 deoxyribonucleic acid synthesis, effect of poliovirus on, 3

egg-borne viruses, 490 El Tor vibrio, role in cholera, 72 electron transport, low-potential, 497 electrophoresis, in virus isolation, 391 endogenous metabolism of bacteria, 126 enterococci, characteristics of, 330 enterococci, differentiation from other streptococci, 330

enterovirus infection, diagnosis of, 400 enteroviruses, cellular susceptibility to, 382 enteroviruses, in specific host cells, 3 enteroviruses, species specificity of, 382 environment, bacterial response to, 296 enzymatic activities of *Mycoplasma*, 97 enzymatic reduction of ferredoxin, 497 *Escherichia coli*, endogenous metabolism of, 126 ethylene glycol, glycolic acid formation by, 164

ferredoxin, bacterial, 497
fetal damage by rubella virus, 444, 452
"first-order" concept of viral inactivation, 150
fluorescent-antibody technique, in study of viruses, 30
food-borne viruses, 490
food poisoning, streptococci in, 330
freshwater, caulobacters from, 231
frozen cells, action of pressure on, 14

Gibberella fujikuroi, phytotoxin production by, 181

Fusarium, phytotoxin production by, 181

Gluconobacter suboxydans, oxidation of ethylene glycol derivatives, 164 glycogen, substrate for endogenous metabolism,

glycol oxidation, enzymology of, 164 glycolic acid, formation by ethylene glycol, 164 glycols, oxidation by acetic acid bacteria, 164 growth inhibitors in plants, 181 growth of caulobacters, 231

hemopoietic diseases, malignant, 490
hepatic cells, infection of, 30
herpes simplex infection in man, latent, 472
herpes simplex virus, 458
herpesvirus, latent, 472
Herpesvirus hominis, virus of herpes simplex, 458
history of scientific journals, 211
host cells, effect of poliovirus on, 3
hydrostatic pressure, effect in microbial systems,
14
hypoxanthine, oxidation of, 497

immune response to viruses, 30
immunofluorescence, use in viral disease diagnosis,
402
immunofluorescence, use in virology, 397
inactivation of viruses, 150
influenza, protective effect of live vaccine, 423

interferon, identification of, 367 ionic environment, bacterial response to, 296

journals, scientific, history of, 211

α-ketoglutarate, ferredoxin reduction by, 497

L-type organisms, physiology of, 97 labeling techniques, in viral disease diagnosis, 397, 400

liver, virus infections of, 30 lymphoid tissue in viral infections, 30

macrophages in virus infections, 30 malignant hemopoietic diseases, 490 measles immunization, 440 microbial systems, effect of hydrostatic pressure on, 14

on, 14
microorganisms, action on macrophages, 30
milk-borne viruses, 490
millipedes, caulobacters from, 231
morphological response to ionic environment, 296
Mucoplasma, physiology of, 97

neoplastic tissues, selective virus sensitivity of, 382

nitrogen fixation, ferredoxin requirements for, 497 nitrogen metabolism of Mycoplasma, 97 nucleic acid metabolism, effect of pressure on, 14 nutrition of group D streptococci, 330 nutrition of Mycoplasma, 97

oxidation of glycols, by acetic acid bacteria, 164 oxidation of reduced ferredoxin, 497

pediatric viral respiratory illness, 431

Penicillium, phytotoxin production by, 181

physiology of L organisms, 97

physiology of Mycoplasma, 97

phytotoxic substances from soil microorganisms,
181

plants, effect of toxins from microorganisms on, 181

plants, phytotoxic substances in, 181 pleuropneumonia-like organisms, physiology of, 97 poliovirus, host species specificity, 3 poly-β-hydroxybutyrate, substrate for endogenous

metabolism, 126
pressure chamber, for disrupting frozen cells, 14
protein, as an endogenous substrate, 126
protein synthesis during policytrus infection, 3

pyridine nucleotide reduction, ferredoxin-linked,

497

rabies virus, identification by immunofluorescence, 397, 402 reoviruses, concentration and purification, 391 respiratory illness, pediatric, 431

respiratory illness, rhinoviruses in, 409 respiratory illness, viral, host factors in, 423 respiratory viruses, discovery of, 423 respirolyticvirus, discovery of, 431 rhinoviruses, chemical characteristics, 409
rhinoviruses, isolation and growth, 409
rhinoviruses, physical characteristics, 409
ribonucleic acid, endogenous use of, 126
ribonucleic acid synthesis, effect of poliovirus
infection on, 3
rubella, fluorescent-antibody diagnosis of, 402

rubella, fluorescent-antibody diagnosis of, 402 rubella-like disease, 452 rubella virus, 444, 452

salt concentration, association of bacterial properties with, 296

scientific journal, 300th anniversary of, 211 seawater, caulobacters from, 231 smallpox, fluorescent-antibody diagnosis of, 397, 402

sodium chloride, bacterial response to, 296 soil, caulobacters from, 231 soil microorganisms, phytotoxic substances from,

181 species specificity of enteroviruses, 382 starvation, effect on survival of microorganisms,

streptococci, group D, 330

target theory of viral inactivation, 150 thorotrast, use in study of macrophages in virus disease, 30

Trichoderma, phytotoxin production by, 181

ultracentrifugation, in virus isolation, 391

vaccine, El Tor, 72 vaccine for measles, 440 vaccines, viral, new, 493 vaccines for rhinovirus illness, 409 vibrios, cholera, 72 viral diseases, diagnosis of, 397 viral inhibitors endogenous to cells, 367

viral respiratory diseases, 439 viral respiratory illness, host factors in, 423 viral respiratory illness, pediatric, 431

viral vaccines, new, 493 viremia, cell-associated, 30 viremia, plasma, 30

virus-careinogen interactions, 480 virus diseases, biologicals for control of, 493 virus diseases, pathogenesis of, 30

virus infections, susceptibility to, 30 virus-sensitive cells, derivation of, 382 virus sensitivity of neoplastic tissues, 382 virus susceptibility of human tissues, 3

virus virulence, 382 virus virulence, relation to interferon induction,

viruses, concentration and purification, 391 viruses, food-borne, 490 viruses, inactivation kinetics, 150

viruses, respiratory, discovery of, 423



# BACTERIOLOGICAL REVIEWS

**VOLUME 28** 

BALTIMORE, MD.

1964

COPYRIGHT © 1964, AMERICAN SOCIETY FOR MICROBIOLOGY

## CONTENTS

## No. 1, MARCH

| Enterovirus Entrance Into Specific Host Cells, and Subsequent Alterations of Cell Protein and Nucleic Acid Synthesis. John J. Holland  Effects of Hydrostatic Pressure on Microbial Systems. Carl-Göran Hedén  Aspects of the Pathogenesis of Virus Diseases. C. A. Mims  Present Status of the El Tor Vibrio Problem. Oscar Felsenfeld  John Crawford and His Contribution to the Doctrine of Contagium Vivum. Raymond N. Doetsch | 3-13<br>14-29<br>30-71<br>72-86<br>87-96 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| No. 2. June                                                                                                                                                                                                                                                                                                                                                                                                                        |                                          |
| Comparative Physiology of Pleuropneumonia-Like and L-Type Organisms. Paul                                                                                                                                                                                                                                                                                                                                                          |                                          |
| F. Smith                                                                                                                                                                                                                                                                                                                                                                                                                           | 97-125                                   |
| Some Aspects of the Endogenous Metabolism of Bacteria. E. A. Dawes and                                                                                                                                                                                                                                                                                                                                                             |                                          |
| D. W. Ribbons                                                                                                                                                                                                                                                                                                                                                                                                                      |                                          |
| Kinetics of the Inactivation of Viruses. C. W. Hiatt                                                                                                                                                                                                                                                                                                                                                                               |                                          |
| K. Kersters                                                                                                                                                                                                                                                                                                                                                                                                                        | 104-100                                  |
| McCalla and F. A. Haskins                                                                                                                                                                                                                                                                                                                                                                                                          |                                          |
| No. 3, September                                                                                                                                                                                                                                                                                                                                                                                                                   |                                          |
| The Scientific Journal—300th Anniversary. J. R. PORTER                                                                                                                                                                                                                                                                                                                                                                             | 211_220                                  |
| Biological Properties and Classification of the Caulobacter Group. Jeanne Stove                                                                                                                                                                                                                                                                                                                                                    | 211-200                                  |
| Poindexter                                                                                                                                                                                                                                                                                                                                                                                                                         | 231-295                                  |
| Aspects of Bacterial Response to the Ionic Environment. A. D. Brown                                                                                                                                                                                                                                                                                                                                                                |                                          |
| The Group D Streptococci. R. H. Deibel                                                                                                                                                                                                                                                                                                                                                                                             | 330-366                                  |
| No. 4, December                                                                                                                                                                                                                                                                                                                                                                                                                    |                                          |
| Symposium on Current Progress in Virus Diseases. A Symposium in Honor of the Centennial of the Boston City Hospital. Maxwell Finland, Guest Editor; John H. Dingle and Herbert R. Morgan, Associate Editors                                                                                                                                                                                                                        |                                          |
| Identification and "Induction" of Interferon. Monto Ho                                                                                                                                                                                                                                                                                                                                                                             | 367-381                                  |
| Cellular Susceptibility to Enteroviruses. Calvin M. Kunin                                                                                                                                                                                                                                                                                                                                                                          | 382–390                                  |
| A. Martin Lerner                                                                                                                                                                                                                                                                                                                                                                                                                   | 391-396                                  |
| Labeling Techniques in the Diagnosis of Viral Diseases. ALBERT H. COONS                                                                                                                                                                                                                                                                                                                                                            |                                          |
| Labeling Techniques in Diagnosis of Enterovirus Infection, F. S. Cheever  Applications of Immunofluorescence in Public Health Virology. Morris                                                                                                                                                                                                                                                                                     | 400-401                                  |
| Schaeffer, Ernest V. Orsi, and Daniel Widelock. Rhinoviruses and Respiratory Disease. Jack M. Gwaltney, Jr., and William                                                                                                                                                                                                                                                                                                           | 402-408                                  |
| S. JORDAN, JR                                                                                                                                                                                                                                                                                                                                                                                                                      | 409-422                                  |
| Understanding of Viral Respiratory Illnesses Provided by Experiments in                                                                                                                                                                                                                                                                                                                                                            |                                          |
| Volunteers. George Gee Jackson                                                                                                                                                                                                                                                                                                                                                                                                     |                                          |
| Viral Respiratory Illnesses of Infants and Children. HENRY G. CRAMBLETT                                                                                                                                                                                                                                                                                                                                                            |                                          |
| Discussion, John H. Dingle                                                                                                                                                                                                                                                                                                                                                                                                         |                                          |
| Emerging Perspective of Rubella. Franklin A. Neva, Charles A. Alford,                                                                                                                                                                                                                                                                                                                                                              | 110 110                                  |
| Jr., and Thomas H. Weller                                                                                                                                                                                                                                                                                                                                                                                                          | 444-451                                  |
| Rubella and Rubelliform Rash. SIDNEY KIBRICK                                                                                                                                                                                                                                                                                                                                                                                       | 452-457                                  |
| Herpesvirus hominis (Virus of Herpes Simplex). T. F. McNair Scott and                                                                                                                                                                                                                                                                                                                                                              | 450 471                                  |
| T. TOKUMARU.  Latent Herpes Simplex Infection in Man. Thomas F. Paine, Jr                                                                                                                                                                                                                                                                                                                                                          |                                          |
| Virus-Carcinogen Interactions. Christopher M. Martin                                                                                                                                                                                                                                                                                                                                                                               |                                          |
| Food-Borne Viruses and Malignant Hemopoietic Diseases. HENRY M. LEMON                                                                                                                                                                                                                                                                                                                                                              | 490-492                                  |
| Biologicals for the Control and Therapy of Virus Diseases. RODERICK MURRAY                                                                                                                                                                                                                                                                                                                                                         | 493-496                                  |
| Bacterial Ferredoxin. R. C. Valentine.                                                                                                                                                                                                                                                                                                                                                                                             | 497-517                                  |
| Erratum                                                                                                                                                                                                                                                                                                                                                                                                                            |                                          |
| Author Index, Vol. 28                                                                                                                                                                                                                                                                                                                                                                                                              | 519                                      |
| Subject Index, Vol. 28                                                                                                                                                                                                                                                                                                                                                                                                             | 520-521                                  |



